

TK-99-287 92736/kcs

A METHOD DESIGNING AN INTEGRATED CIRCUIT

ORIGINAL  
SPECIFICATION HAS  
BEEN REPLACED  
TS  
3/31/06

FIELD OF THE INVENTION

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The present invention relates to a method of designing an integrated circuit and a model for use in designing an integrated circuit.

BACKGROUND OF THE INVENTION

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As integrated circuits become more complicated, it has become harder to translate an initial design into a silicon design. In principle it is possible for the silicon design to be drawn up by an individual. However in practice, this is difficult for an individual designer to do as there are a huge number of components on a chip. One small error in the design may result in a faulty integrated circuit. Additionally, this process is very slow and can significantly delay the amount of time taken to get the integrated circuit to the manufacturing stage.

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Various computer programs have been proposed to assist in the design of an integrated circuit and more particularly in the testing of a design. These computer programs have typically been in the form of digital simulators which simulate a circuit under test. A hardware description language (HDL) has been designed to simulate and describe the behaviour of digital circuitry. However, whilst programs such as HDL are useful in testing a design, they do not assist in the design of the integrated circuit itself.

Additionally, once the higher level design of an integrated circuit has been completed, it can be a laborious process to obtain the gate level design which provides the higher level function.

SUMMARY OF THE INVENTION

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It is therefore an aim of embodiments of the present invention to provide a method which is able to reduce the amount of time required in order to design an integrated circuit.



Substitute Specification  
OK for ENTRY

**A METHOD FOR DESIGNING AN INITIATOR IN  
AN INTEGRATED CIRCUIT**

TS  
3/31/06

**FIELD OF THE INVENTION**

[0001] The present invention relates to a method of designing an integrated circuit and a model for use in designing an integrated circuit.

**BACKGROUND OF THE INVENTION**

[0002] As integrated circuits become more complicated, it has become harder to translate an initial design into a silicon design. In principle it is possible for the silicon design to be drawn up by an individual. However in practice, this is difficult for an individual designer to do as there are a huge number of components on a chip. One small error in the design may result in a faulty integrated circuit. Additionally, this process is very slow and can significantly delay the amount of time taken to get the integrated circuit to the manufacturing stage.

[0003] Various computer programs have been proposed to assist in the design of an integrated circuit and more particularly in the testing of a design. These computer programs have typically been in the form of digital simulators which simulate a circuit under test. A hardware description language (HDD has been designed to simulate and describe the behavior of digital circuitry. However, whilst programs such as HDL are useful in testing a design, they do not assist in the design of the integrated circuit itself.

[0004] Additionally, once the higher level design of an integrated circuit has been completed, it can be a laborious process to obtain the gate level design which provides the higher level function.

**SUMMARY OF THE INVENTION**

[0005] It is therefore an aim of embodiments of the present invention to provide a method which is able to reduce the amount of time required in order to design an integrated circuit.